

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 3 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1 – 132. (canceled).

133. (Currently Amended) A transformer including a housing that contains a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a one or more vegetable oil oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, and wherein the one or more vegetable oil ~~has~~ oils have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

134. (Currently Amended) The transformer of claim 133, wherein the one or more antioxidant ~~compound~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

135. (Currently Amended) The transformer of claim 134, wherein the dielectric fluid further ~~comprises~~ consists of at least one of a low temperature additive and an antimicrobial additive.

136. (Currently Amended) A transformer including a tank housing a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of ~~an~~ one or more ~~olcate~~ modified vegetable oil oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, and wherein the one or more vegetable oil ~~has~~ oils have a viscosity of between 2 and

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 4 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

137. (Currently Amended) The transformer of claim 136, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

138. (Currently Amended) The transformer of claim 137, wherein the dielectric fluid further ~~comprises~~ consists of at least one of a low temperature additive and an antimicrobial additive.

139. (Currently Amended) A transformer including a tank housing a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a base oil and additives that increase the functional properties of the base oil, the base oil consisting of a one or more vegetable ~~oil~~ oils having a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and the additives selected from the group consisting of an one or more antioxidant ~~compound~~ compounds, a low temperature additive and an antimicrobial additive.

140. (Currently Amended) The transformer of claim 139, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

141. Canceled

142. (Currently Amended) A transformer including a housing that contains a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a one or more vegetable ~~oil~~ oils with a viscosity of between 2 and 15 cSt at 100°C, and less

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 5 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

than 110 cSt at 40°C and ~~an~~ one or more antioxidant ~~compound~~ compounds; and wherein the dielectric fluid has: (a) a minimum dielectric breakdown of greater than or equal to 30 kV; (b) a fire point of greater than 300°C; and (c) a pour point between -15 and -25°C.

143. (Currently Amended) The transformer of claim 142, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

144. (Currently Amended) The transformer of claim 143, wherein the dielectric fluid further ~~comprises~~ consists of a least one of a low temperature additive and an antimicrobial additive.

145. (Currently Amended) The transformer of claim 142, wherein the one or more vegetable ~~oil is~~ oils are an oleate modified vegetable ~~oil~~ oils.

146-153. Canceled

154. (Currently Amended) A method of using a transformer including a housing that contains a transformer core/coil assembly, comprising: employing in the transformer a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a base oil and additives that increase the functional properties of the base oil, the base oil consisting of a one or more vegetable ~~oil~~ oils having a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and the additives selected from the group consisting of ~~an~~ one or more antioxidant ~~compound~~ compounds, a low temperature additive and an antimicrobial additive.

155. (Currently Amended) The method of claim 154, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

156. Canceled

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 6 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

157. (Currently Amended) A method of using a transformer, comprising employing in the transformer a dielectric fluid, the dielectric fluid consisting of a one or more vegetable ~~oil~~ oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

158. (Currently Amended) The method of claim 157, wherein the one or more antioxidant ~~compound~~ is compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

159. (Currently Amended) The method of claim 158, wherein the dielectric fluid further ~~comprises~~ consists of a least one of a low temperature additive and an antimicrobial additive.

160. (Currently Amended) A method of using a transformer, comprising employing in the transformer a dielectric fluid, the dielectric fluid consisting of ~~an~~ one or more oleate modified vegetable ~~oil~~ oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

161. (Currently Amended) The method of claim 160, wherein the one or more antioxidant ~~compound~~ is compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

162. (Currently Amended) The method of claim 161, wherein the dielectric fluid further ~~comprises~~ consists of a least one of a low temperature additive and an antimicrobial additive.

163-174. (Canceled)

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 7 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

175. (Currently Amended) A transformer including a housing that contains a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a one or more vegetable oil and ~~an~~ one or more antioxidant compound ~~compounds~~, and wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C.

176. (Currently Amended) The transformer of claim 175, wherein the one or more antioxidant compound ~~is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

177. (Previously Presented) The transformer of claim 175, wherein the dielectric fluid further consists of at least one of a low temperature additive and an antimicrobial additive.

178. (Currently Amended) The transformer of claim 175, wherein the one or more vegetable oil ~~is an~~ oils are oleate modified vegetable ~~oil~~ oils.

179. (Currently Amended) A method of retrofilling a transformer, comprising removing an existing dielectric fluid from the transformer and replacing the existing dielectric fluid with a dielectric fluid consisting of a one or more vegetable oil and ~~an~~ one or more antioxidant compound ~~compounds~~, wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C.

180. (Currently Amended) The method of claim 179, wherein the one or more antioxidant compound ~~is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

181. (Previously Presented) The method of claim 179, wherein the dielectric fluid further consists at least one of a low temperature additive and an antimicrobial additive.

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 8 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

182. (Currently Amended) The method of claim 179, wherein the vegetable ~~oil is an~~
oils are oleate modified vegetable ~~oil~~ oils.

183. (Currently Amended) A transformer including a housing that contains a core/coil
assembly, comprising:

a dielectric fluid surrounding said core/coil assembly, wherein the dielectric fluid consists
of a one or more vegetable ~~oil~~ oils, an one or more antioxidant ~~compound~~ compounds and a low
temperature additive, wherein the vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at
100°C and less than 100 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

184. (Currently Amendedd) The transformer of claim 183, wherein the
vegetable ~~oil is an~~ oils are oleate modified vegetable ~~oil~~ oils.

185. (Previously Presented) The transformer of claim 183, wherein the dielectric
fluid further consists of an antimicrobial additive.